STUDY PLAN
GEOPHYSICAL SURVEYS
LEES LAND LANDFILL
LOUISVILLE, KENTUCKY
APRIL 12-16, 1982

INTRODUCTION

Ecology and Environment (E&E) and EPA personnel will conduct geophysical surveys (magnetometer and resistivity) at Lees Lane Landfill, Louisville, Kentucky during the week of April 12-16, 1982. The purpose of the surveys is to locate buried drums and to identify the general stratigraphy underlying the site.

The site is located within the Ohio River Valley Alluvium adjacent to the Ohio River. The landfill was used as disposal for domestic, commercial, and industrial wastes from 1948 to 1975. In 1975 methane gas was detected in basements in nearby Riverside Gardens subdivision. The gas migration problem was alleviated when a gas vent system was installed in 1980.

Sampling at the site has identified both organic and inorganic contaminants. In 1980 analyses of drum waste identified over 50 compounds including phenolic resins, benzene, and relatively high concentrations of copper, cadmium, nickel, lead, and chromium. Ground-water sample analyses in 1981 identified Bis (2-ethylhexyl) phthalate, trichlorofluoromethane, dichlorodifluoromethane, phenol and eleven different metal contaminants.

The exposed drums along the river bank were removed in 1981. All wastes are presently underground.

SCOPE

The scope of work involves conducting a magnetometer survey over the site and conducting resistivity soundings at selected locations to a depth of 150 feet.

OBJECTIVES

The objectives of the surveys are as follows:

1. An identification of buried metal wastes.
2. An identification of the general stratigraphy underlying the site.

STUDY METHODOLOGY

The magnetometer survey will be conducted on a 50-foot grid pattern in a north-south direction. A second traverse in an east-west direction will also be conducted.

The resistivity soundings will be conducted at selected locations to a depth of 150 feet.

SAFETY

No wastes are exposed at the ground surface, therefore Level D protection is sufficient.

Safety precautions will be instituted at the instruction of the team leader. Any team member may employ additional safety precautions at his/her own discretion. If at any time during the study a team member observes a situation which he/she feels presents an imminent hazard to the team, he/she should signal the other members to evacuate the area. If this occurs, the area is to be evacuated immediately by all team members.

DATE	TASK
April 11, 1982	Travel to Louisville, KY via air
April 12, 1982	Conduct magnetometer survey
April 13, 1982	Conduct magnetometer survey
April 14, 1982	Conduct magnetometer survey
April 15, 1982	Conduct resistivity survey
April 16, 1982	Complete field work and return to Atlanta.

CONTACTS

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